UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,151	09/15/2000	Bradley J. Swearingen	1302-1001	2668

32376   7590   10/28/2008

LAWRENCE R. YOUST
2001 Ross Avenue
Suite 3000
DALLAS, TX 75201

EXAMINER
SUBRAMANIAN, NARAYANSWAMY

ART UNIT	PAPER NUMBER
3695	

MAIL DATE	DELIVERY MODE
10/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/663,151
Filing Date: September 15, 2000
Appellant(s): SWEARINGEN ET AL.

Lawrence R. Youst (Reg. No. 38, 795)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on August 14, 2008 appealing from the Office

action mailed March 19, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

9(a)   Claims 67-114 are rejected under 35 U.S.C. § 101 because the claimed invention

is directed to non-statutory Subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "new and

useful process, machine, manufacture, or composition of matter, or any new and useful

improvement thereof" (emphasis added).

Claims 67-114 are drawn to "a computer readable medium having a sequence of

instructions, a system and a method for enabling a trade in a user selected user preferred security,

the method comprising: identifying user preferred securities from a plurality of securities based

upon at least two user specific criteria including at least one criterion related to pricing;

generating a graph in which each of the user preferred securities is represented and graphically

differentiated from each of the other user preferred securities based upon the values of at least

three user specific parameters associated with each of the user preferred securities; receiving a

user selection of one of the user preferred securities represented on the graph; associating order

parameters with the user selected user preferred security; and sending an order to execute a trade

in, the user selected user preferred security according to the order parameters". As such the

claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea,

natural phenomenon, or law of nature) and is not directed to a practical application of such

judicial exception because the claims do not require any physical transformation and the

invention as claimed does not produce a useful, concrete, and tangible result.

The Court of Appeals for the Federal Circuit issued opinions in *State Street Bank & Trust*

Co. v. Signature Financial Group Inc., 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and

AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999).

These decisions explained that, to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601 02*. To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (a) The claimed invention "transforms" an article or physical object to a different state or thing. (b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. See MPEP § 2107. The computer readable medium claims 67-82 and the system claims 83-98 of the claimed invention is inoperative and therefore lacks utility as discussed below.

For an invention to produce a "concrete" result, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. *In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)* (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or unpredictable. The steps of the method are not described in sufficient specific detail to guarantee that results will be concrete. For instance one of the intermediate steps includes receiving a user selection of one of the user preferred securities represented on the graph. However it is not clear how a certain graph will result in the same selection of securities by a user. Since there is no guarantee that the user selection will be identical for all iterations of the method, this step does not necessarily lead to concrete results.

        9(b)   Claims 67-82 of the disclosed invention is inoperative and therefore lacks utility.

Claims 67-82 are drawn to "a computer readable medium having a sequence of instructions

which, when executed by a processing entity, effectuates a trade in a user selected user preferred

security, the computer readable medium comprising: a code segment for identifying user

preferred securities from a plurality of securities based upon at least two user specific criteria

including at least one criterion related to pricing; a code segment for generating a graph in which

each of the user preferred securities is represented and graphically differentiated from each of the

other user preferred securities based upon the values of at least three user specific parameters

associated with each of the user preferred securities; a code segment for receiving a user

selection of one of the user preferred securities represented on the graph; a code segment for

associating order parameters with the user selected user preferred security; and a code segment

for sending an order to execute a trade in the user selected user preferred security according to

the order parameters". The computer readable medium is interpreted broadly to include an

intangible medium. Claims 67-82 merely recite elements of a computer readable medium ("code

segments" correspond to software program elements and not tangible hardware components)

without showing any ability to realize functionality of the recited elements (i.e. functional

descriptive material per se) and therefore is rendered inoperative lacking any utility. Note that a

computer (or software program) code cannot by itself perform the underlying function until it is

loaded on some computer readable memory and accessed by the computer (or a processor).

Functional descriptive material, per se, is not statutory. This is exemplified in *In re Warmerdam*

31 USPQ2d 1754 where the rejection of a claim to a disembodied data structure was affirmed.

Thus a claim to a data structure, per se, or other functional descriptive material, including

computer programs, per se, is not patent eligible subject matter.

 9(c) Similarly Claims 83-98 of the disclosed invention is inoperative and therefore

lacks utility. Claims 83-98 are drawn to "system for enabling a trade in a user selected user

preferred security, the system comprising: means for identifying user preferred securities from a

plurality of securities based upon at least two user specific criteria including at least one criterion

related to pricing; means for generating a graph in which each of the user preferred securities is

represented and graphically differentiated from each of the other user preferred securities based

upon the values of at least three user specific parameters associated with each of the user

preferred securities; means for receiving a user selection of one of the user preferred securities

represented on the graph; means for associating order parameters with the user selected user

preferred security; and means for sending an order to execute a trade in the user selected user

preferred security according to the order parameters". Claims 67-82 merely recite elements of a

system ("means for" are broadly interpreted to correspond to software program elements and not

tangible hardware components) without showing any ability to realize functionality of the recited

elements (i.e. functional descriptive material per se) and therefore is rendered inoperative lacking

any utility. Note that a computer (or software program) code cannot by itself perform the

underlying function until it is loaded on some computer readable memory and accessed by the

computer (or a processor). Functional descriptive material, per se, is not statutory. This is

exemplified in *In re Warmerdam 31 USPQ2d 1754* where the rejection of a claim to a

disembodied data structure was affirmed. Thus a claim to a data structure, per se, or other

functional descriptive material, including computer programs, per se, is not patent eligible subject matter.

9(d)   Claims 99-114 are drawn to "a method for enabling a trade in a user selected user preferred security, the method comprising: identifying user preferred securities from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing; generating a graph in which each of the user preferred securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities; receiving a user selection of one of the user preferred securities represented on the graph; associating order parameters with the user selected user preferred security; and sending an order to execute a trade in, the user selected user preferred security according to the order parameters". It is not clear as to which statutory class the claimed invention of claims 99-114 belongs. The claimed invention does not fall in the process category for the following reason. The Supreme Court has recognized only two instances in which such a method may qualify as a section 101 process: when the process 'either [1] was tied to a particular apparatus or [2] operated to change materials to a 'different state or thing.'" In *Diehr*, the Supreme Court confirmed that a process claim reciting an algorithm could state statutory subject matter if it: (1) is tied to a machine or (2) creates or involves a composition of matter or manufacture.12 450 U.S. at 184. There, in the context of a process claim for curing rubber that recited an algorithm, the Court concluded that "[t]ransformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines." Id. (quoting *Benson, 409 U.S. at 70*);13 see also *In re Schrader, 22 F.3d 290, 295 (Fed. Cir. 1994)* (holding when a

claim does not invoke a machine, "§ 101 requires some kind of transformation or reduction of

subject matter"). Thus, a claim that involves both a mental process and one of the other

categories of statutory subject matter (i.e., a machine, manufacture, or composition) may be

patentable under § 101. However, mental processes—or processes of human thinking—standing

alone are not patentable even if they have practical application. The Supreme Court has stated

that "[p]henomena of nature, though just discovered, mental processes, and abstract intellectual

concepts are not patentable, as they are the basic tools of scientific and technological work."

Benson, 409 U.S. at 67 (emphasis added). In *Flook* the patentee argued that his claims did not

seek to patent an abstract idea (an algorithm) because they were limited to a practical application

of that idea—updating "alarm limits" for catalytic chemical conversion of hydrocarbons. 437

U.S. at 586, 589-90. The Court rejected the notion that mere recitation of a practical application

of an abstract idea makes it patentable, concluding that "[a] competent draftsman could attach

some form of post-solution activity to almost any mathematical formula." Id. at 590. Since all

other features of the process were well-known, including "the use of computers for 'automatic

monitoring-alarming,'" the Court construed the application as "simply provid[ing] a new and

presumably better method for calculating alarm limit values." Id. at 594-95. The 14 See AT&T,

172 F.3d at 1355, 1358 (holding patentable "a process that uses the Boolean principle in order to

determine the value of the PIC indicator" and that "require[d] the use of switches and

computers"); *State Street Bank, 149 F.3d at 1373* ("[W]e hold that the transformation of data . . .

by a machine through a series of mathematical calculations into a final share price, constitutes a

practical application of a mathematical algorithm." (emphases added)); *Alappat, 33 F.3d at 1544*

("This is not a disembodied mathematical concept which may be characterized as an 'abstract

idea,' but rather a specific machine to produce a useful, concrete, and tangible result." (emphases

added)); *Arrhythmia Research Tech., Inc. v. Corazonix Corp., 958 F.2d 1053, 1058-59 (Fed. Cir.*

1992) (holding patentable a method for analyzing electrocardiograph signals for the detection of

a specific heart condition that used "electronic equipment programmed to perform mathematical

computation"). Court held the application unpatentable because "if a claim [as a whole] is

directed essentially to a method of calculating, using a mathematical formula, even if the solution

is for a specific purpose, the claimed method is nonstatutory." 437 U.S. at 595 (quoting *In re*

Richman, 563 F.2d 1026, 1030 (CCPA 1977). Following the lead of the Supreme Court, this

court and our predecessor court have refused to find processes patentable when they merely

claimed a mental process standing alone and untied to another category of statutory subject

matter even when a practical application was claimed. In *Schrader* we held unpatentable a

"method constitut[ing] a novel way of conducting auctions" by allowing competitive bidding on

a plurality of related items. 22 F.3d at 291. In doing so, we rejected the patentee's argument that

the process used a machine. Two of the alleged machines—a "display" in the front of the auction

room and "a closed-circuit television system" for bidders in different cities—were not claimed

by the patent, and the third—a "record" in which bids could be entered—could be "a piece of

paper or a chalkboard." Id. at 293-94. We therefore concluded that the patent impermissibly

claimed unpatentable subject matter. Similarly, in *In re Warmerdam,33 F.3d 1354 (Fed. Cir.*

1994), we held unpatentable a process for controlling objects so as to avoid collisions because

the key steps of "locating a medial axis" and "creating a bubble hierarchy" described "nothing

more than the manipulation of basic mathematical constructs, the paradigmatic 'abstract idea.'"

Id. at 1360. A machine was not required, id. at 1358, nor was there any indication that the

process operated on a manufacture or composition of matter. Decisions of our predecessor court

are in accord. *In re Meyer, 688 F.2d 789, 796 (CCPA 1982*), held that "a mental process that a

neurologist should follow" was not patentable because it was "not limited to any otherwise

statutory process, machine, manufacture, or composition of matter." Id. at 795. Similarly, *In re

Maucorps, 609 F.2d 481 (CCPA 1979*), held that an invention "[u]ltimately . . . directed toward

optimizing the organization of sales representatives in a business" was unpatentable. Id. at 482,

486. See also *Alappat*, 33 F.3d at 1541 ("*Maucorps* dealt with a business method for deciding

how salesmen should best handle respective customers and Meyer involved a 'system' for aiding

a neurologist in diagnosing patients. Clearly, neither of the alleged 'inventions' in those cases

falls within any § 101 category."). The steps of the method are untied to another category of

statutory subject matter and hence the claimed invention does not qualify as a process under 35

U.S.C 101.

(10) Response to Argument

In response to Appellant's assertion on page 18 of the Brief "Therefore, contrary to the

Examiner's assertions, the underlying process of claims 67 and 82, and claims depending

therefrom, is repeatable and the result of effectuating a trade in a user selected user preferred

security is reproducible", the Examiner respectfully disagrees. Once user inputs of a user

preferred security and at least two user specific criteria are received a graph is generated. The

process is repeatable until this step. However after the generation of the graph the results are no

longer repeatable because there is no guarantee that the user selection based the graph will be

identical. Hence as stated in the rejection, it is not clear how a certain graph will result in the

same selection of securities by a user. Since there is no guarantee that the user selection will be

identical for all iterations of the method, this step does not necessarily lead to concrete results.

Hence the implementation of the steps of the process will not produce a useful, tangible and

concrete result.

In response to Appellant's assertion on page 21 of the Brief "As in Alappat, the "means"

clearly have support and structure as provided in the specification. This is indicated by example

in Section 5 "Summary of the Claimed Subject Matter", supra, at pages 2-9, specifically pages 5-

7. This is clear evidence that the presently claimed system properly satisfies the sixth paragraph

of 35 U.S.C. § 112 and 35 U.S.C. § 101", Examiner respectfully disagrees. For a claim limitation

to be interpreted using the 35 U.S.C. 112, sixth paragraph, if it must meet the following 3-prong

analysis: (A) the claim limitations must use the phrase "means for " or "step for; " (B) the

"means for " or "step for " must be modified by functional language; and (C) the phrase "means

for " or "step for " must not be modified by sufficient structure, material, or acts for achieving

the specified function. The system claims do not meet the third of the 3-prong analysis. The

means for is modified by sufficient structure, material, or acts for achieving the specified

function. For instance claim 83 recites "means for generating a graph in which each of the user

preferred securities is represented and graphically differentiated from each of the other user

preferred securities based upon the values of at least three user specific parameters associated

with each of the user preferred securities". Clearly the means for generating a graph is modified

by a lot of structure, material, or acts for achieving the function of generating. Hence the system

claims 83-98 do not satisfy the sixth paragraph of 35 U.S.C. § 112.

In response to Appellant's assertion on page 27 of the Brief "Proper construction under

the USPTO's "broadest reasonable interpretation" standard defines the claim 99 method as

requiring the code segments on computer readable medium (article of manufacture) and the

system (machine) embodying the code segments on computer readable medium. See

Specification at page 6, lines 8-16, for example.", Examiner respectfully disagrees. Although the

claims are interpreted in light of the specification, limitations from the specification are not read

into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As

discussed in the rejection of method claims 99-114, the steps of the method are untied to another

category of statutory subject matter and hence the claimed method does not qualify as a process

under 35 U.S.C 101.

Appellant's other arguments have been fully considered but they are not persuasive.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Narayanswamy Subramanian/
Primary Examiner,
Art Unit 3695

October 22, 2008

Conferees:

/Alexander Kalinowski/ AK
Supervisory Patent Examiner, Art Unit 3691

Vincent Millin /VM/
Appeals Practice Specialist